CLAIMS:

1. A method of treating a bowel condition comprising the step of administering a pharmaceutically active formulation of PYY or a PYY agonist to a patient in need thereof.

2. The method of claim 1 wherein the bowel condition is selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

3. The method of claim 2 wherein the inflammatory bowel disease is ulcerative colitis.

4. A method of using PYY or an agonist of PYY comprising the steps of:

administrering PYY or an agonist of PYY to a subject suffering from bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

5. A method of using PYY or an agonist of PYY comprising the steps of:

formulating PYY or an agonist of PYY with a pharmaceutically accepted carrier;

disseminating information to health care professionals on administering of PYY or the agonist of PYY, or both, to a subject suffering from a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

6. A method of manufacturing a drug product comprising PYY or an agonist of PYY, the method comprising the steps of:

formulating PYY or an agonist of PYY with a pharmaceutically accepted carrier;

labeling the formulated PYY or the agonist of PYY, or both for use in subject suffering from a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

7. A method of manufacturing a drug product comprising a PYY agonist, the method comprising the steps of:

obtaining a library of compounds;

identifying at least one compound from the library of compounds by contacting the at least one compound to a PYY-preferring receptor;

isolating at least one compound from the library of compounds, wherein the at least one compound binds to the PYY-preferring receptor;

administering the at least one compound to an animal that is a model for a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function;

formulating the at least one compound with a pharmaceutically accepted carrier when the administration to the animal shows an ability of the at least one compound to alleviate the bowel condition; and

packaging the at least one compound in a suitable container.

8. A method of manufacturing a drug product comprising a PYY agonist, the method comprising the steps of:

generating a mutant of the PYY polypeptide;

contacting the mutant to a PYY-preferring receptor;

administering the mutant to an animal that is a model for a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function, when the mutant is determined to be binding to the PYY-preferring receptor;

formulating the mutant with a pharmaceutically accepted carrier when the administration to the animal shows an ability of the mutant to alleviate inflammatory bowel disease; and

packaging the mutant within a suitable container.

9. A method of identifying a PYY agonist useful for the prevention or treatment of a bowel condition, the method comprising the steps of:

obtaining a library of compounds;

identifying at least one compound from the library of compounds by contacting the at least one compound to a PYY-preferring receptor;

isolating at least one compound from the library of compounds, wherein the at least one compound binds to the PYY-preferring receptor; and

administering the at least one compound to an animal that is a model for a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

10. A method of identifying a PYY agonist useful for the prevention or treatment of a bowel condition, the method comprising the steps of:

generating a mutant of the PYY polypeptide;

contacting the mutant to a PYY-preferring receptor; and

administering the mutant to an animal that is a model for a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function, when the mutant is determined to be binding to the PYY-preferring receptor.

11. A composition for administering to a subject with inflammatory bowel disease, the composition comprising:

a PYY molecule or an agonist of the PYY molecule; and

an anti-inflammatory agent.

12. The composition of claim 9 wherein the anti-inflammatory agent selected from the group consisting of: tacrolimus, mycophenolate mofetil, anti-tumor necrosis factor antibody, interleukin-10, interleukin-11, anti-interleukin-12 antibody, anti-interleukin-1 antibody, anti-alpha4 integrin antibody, and nicotine.

13. A composition for administering to a subject with inflammatory bowel disease, the composition comprising:

a PYY molecule or an agonist of the PYY molecule; and

a growth hormone.

14. A probiotic bacterium comprising a nucleic acid encoding PYY or a PYY agonist, wherein the probiotic bacterium expresses and secretes PYY or the PYY agonist.

15. The probiotic bacterium in claim 12 wherein the probiotic baterium is a lactobacillus bacterium.

16. An article of manufacture comprising:

a container comprising a PYY or a PYY agonist;

a label packaged together with the container indicating a use of the PYY or the PYY agonist for administration to a subject with a bowel condition selected from the group consisting of inflammatory bowel disease, bowel atrophy, loss of bowel mucosa, and loss of bowel mucosal function.

17. The article of manufacture of claim 16 wherein the label is a packaging insert.

18. The article of manufacture of claim 16 wherein the label is affixed to the container.

19. A method of treating ulcerative colitis comprising the step of administering a pharmaceutically active formulation of PYY[3-36] to a patient with ulcerative colitis.

20. The method of claim 19 wherein the step of administering is by subcutaneous administration.

21. The method of claim 19 wherein the pharmaceutically active formulation of PYY[3-36] is at a dose of 900μg/kg of body weight.

22. A method of using PYY[3-36] comprising the steps of:

diagnosing a subject to be suffering from ulcerative colitis; and

administering PYY[3-36] to the subject.

23. A method of using PYY[3-36] comprising the steps of:

formulating PYY[3-36] with a pharmaceutically accepted carrier;

disseminating information to health care professionals on administering of PYY[3-36] to a subject with ulcerative colitis.

24. A method of manufacturing a drug product comprising PYY[3-36], the method comprising the steps of:

formulating PYY[3-36] with a pharmaceutically accepted carrier;

labeling the formulated PYY[3-36] for use in subject with ulcerative colitis.

25. An article of manufacture comprising:

a container comprising a PYY[3-36] polypeptide;

a label packaged together with the container indicating a use of the PYY[3-36] polypeptide for administration to a subject with ulcerative colitis.